



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200
Fax 613 632-5246

D5785-3

Job Sheet 208155



Part No: D5785-3

Job Qty: 12 pcs

Part Name: Support



Part Weight: 0 lbs

Job Created: 3/12/20

Due Date: 3/31/20

Type: Stock

Status: New

Job Tracking No:

Created By: Jennifer Renwick

Description:

Note: URF 20-522 DWG 5785 REV.A IPP REV:A NEW ISSUE 20.01.14 JV VERF:DD

Ship Via:

30 pcs. **POSITIVE RECALL**

EFFECTIVE 26/3/12 AUTH S42

RELEASED DATE

Priority: Medium

POSITIVE
RECALL

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier	Sign-off
					Setup Hrs	Run Hrs		
100	SL-154 - 1	12 pcs	3/31/20		0.50	0.48	SL-154 - 1	JB 20-03-13
							SL-2500Y - 1	
110	QC 2	12 pcs	3/31/20		0.00	0.00	QC 2 - 1	
							QC 2 - 12	
							QC 2 - 14	
							QC 2 - 17	
							QC 2 - 19	
							QC 2 - 2	
							QC 2 - 20	
							QC 2 - 22	
							QC 2 - 23	
							QC 2 - 25	
							QC 2 - 32	
							QC 2 - 33	
							QC 2 - 35	
							QC 2 - 36	
							QC 2 - 4	
							QC 2 - 40	
							QC 2 - 44	
							QC 2 - 45	
							QC 2 - 48	
							QC 2 - 49	
							QC 2 - 50	
							QC 2 - 51	
							QC 2 - 52	
							QC 2 - 57	
							QC 2 - 62	JB 20-03-13
							QC 2 - 63	
							QC 2 - 8	
							QC 2 - 66	
							QC 2 - 64	



Container No: S263635



Part: D5785-3

Job No: 208155

Serial No/Batch: S263635

Revision: REV.A

Inspector:

Exp Date:

In

Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
CANADA
TEL: 1 613 632-5200
Email: sales@dartaero.com
www.dartaerospace.com

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62
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Plex 3/12/20 8:56 AM Dart.Renwick.Jennifer

				QC 2 - 65	
				QC 2 - 6	
				QC 2 - 71	
				QC 2 - 73	
				QC 2 - 69	
				QC 2 - 76	
				QC 2 - 86	
120 QC 8	12 pcs	3/31/20	0.00 0.00	QC 8 - 12	
				QC 8 - 14	2/20/03/14
				QC 8 - 17	
				QC 8 - 20	
				QC 8 - 25	
				QC 8 - 3	
				QC 8 - 32	
				QC 8 - 33	
				QC 8 - 35	
				QC 8 - 39	
				QC 8 - 4	
				QC 8 - 44	
				QC 8 - 45	
				QC 8 - 49	
				QC 8 - 59	
				QC 8 - 8	
				QC 8 - 9	
				QC 8 - 88	
				QC 8 - 67	
				QC 8 - 1 (A)	
				QC 8 - 47	
				QC 8 - 40	
				QC 8 - 52	
				QC 8 - 23	
				QC 8 - 67	
				QC 8 - 76	
				QC 8 - 61	
150 Packaging 3-1 - Stock - B4B	12 pcs	3/31/20	0.00 0.00	Packaging 3 - 1 - B4B	
				Packaging 3 - 2 - B4B	
				Packaging 3 - 3 - B4B	
				Packaging 3 - 4 - B4B	
				Packaging 3 - 5 - B4B	
				Packaging 3 - 6 - B4B	
				Packaging 3 - 7 - B4B	
				Packaging 3 - 8 - B4B	
				Packaging 3 - 9 - B4B	
				Packaging 3 - 10 - B4B	
				Packaging 3 - 11 - B4B	MAC
				Packaging 3 - 12 - B4B	
				Packaging 3 - 13 - B4B	
				Packaging 3 - 14 - B4B	
				Packaging 3 - 15 - B4B	
				Packaging 3 - 16 - B4B	
				Packaging 3 - 17 - B4B	
				Packaging 3 - 18 - B4B	
				Packaging 3 - 19 - B4B	
				Packaging 3 - 20 - B4B	
				Packaging 3 - 21 - B4B	
				Packaging 3 - 22 - B4B	
				Packaging 3 - 23 - B4B	
				Packaging 3 - 24 - B4B	
				Packaging 3 - 25 - B4B	

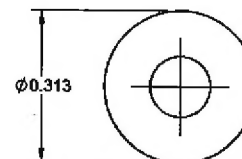
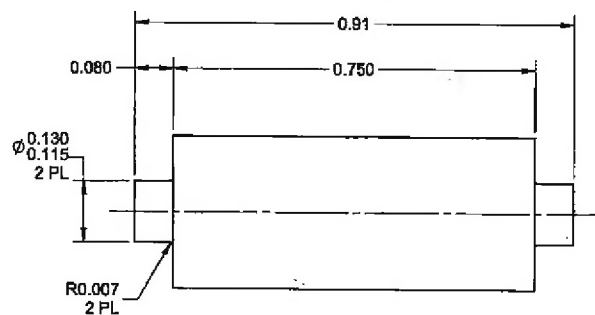
3/12/2020

[Dart Hawkesbury] Job Sheet - Renwick, Jennifer

				Packaging 3 - 26 - B4B	
				Packaging 3 - 27 - B4B	
				Packaging 3 - 28 - B4B	
				Packaging 3 - 29 - B4B	
				Packaging 3 - 30 - B4B	
				Packaging 3 - 31 - B4B	
				Packaging 3 - 32 - B4B	
				Packaging 3 - 33 - B4B	
				Packaging 3 - 34 - B4B	
				Packaging 3 - 35 - B4B	
				Packaging 3 - 36 - B4B	
				Packaging 3 - 37 - B4B	
140 QC 21 - SA	12 pcs	3/31/20	0.00 0.00	QC 21 - SA - 21	21
				QC 21 - SA - 70	
				QC 21 - SA - 53	
Part Op 100 - 1-Machine as per folio FD198 FOLIO REV: <u>AA</u> DWG REV: <u>A</u> 2-Debur Descriptions: 110 - QC2- Inspect parts off machine FAI/FAIR 120 - (QC8- Inspect parts - second check) 130 - (Identify as per dwg & Stock Location: <u>QA 664</u>) 140 - (QC21- Final Inspection - Work Order Release)					
Job BOM					
Part / Item	Component Name	Quantity	Operation	Container	
M304R0.313	304 SS Round bar .313	1.0500 ft (.0875 ea)	100-SL-154 - 1	<u>S123400</u>	
Job Allocations					
Operation	Component Part	Required	Inventory	Allocated	
100-SL-154 - 1	M304R0.313	1	10	0	
Part Specifications					
Specifications could not be found.					

Plex 3/12/20 8:56 AM Dart.Renwick.Jennifer

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 208155



D5785-3 SUPPORT
(DERIVED FROM AERO DESIGN P/N 36275-02)

UNDER REVIEW
URF 2020-522 20.02.14 (NO)

NOTES:

- 1) MATERIAL: 304/316 STAINLESS STEEL ROUND BAR
PER ASTM A276 OR ASTM A479
REF DART SPEC M304R
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 0.02 lbs

RELEASED
2020 FEB 18 *ND*

APPROVED

DESIGN	ZF	DART AEROSPACE LTD	
DRAWN	ZF	HAWKESBURY, ONTARIO, CANADA	
CHECKED	KPT	DRAWING NO.	REV. A
MFG. APPR.	DD	D5785	SHEET 3 OF 3
APPROVED	NO	TITLE	SCALE
DE APPR.	CP	HANDLE BRACKET	NTS
DATE	20.01.09	<small>COPYRIGHT © 2020 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS UNDERSTANDING THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR DISSEMINATED IN ANY MANNER WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>	

DART AEROSPACE LTD

Work Order:

208155

Description: HANDLE BRACKET - SUPPORT

Part Number:

D5785-3

Inspection Dwg: D5785

Rev: A

Page 1 of 1

INSPECTION SHEET

[illegible]

DAS
62
9-89

Measured by: JB

Date: 20-03-13

Checked by:

Date: 20/03/14

QC Inspector:

Date: _____

Engineering Approval:
(If necessary)

Date:

Rev	Date	Change	Revised by	Approved
A	13-Mar-20	New Issue	MG	



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER **PO041482**

Items												
Line Item	Job	Part	Supplier Part No	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
5		M304B0.750X1.000		304 Bar 0.750 X 1.000" : MATERIAL: AISI 304/316 SS BAR OR AISI 304/316 SS PLATE AS PER ASTM A276 OR ASTM A240 NOTE: AISI 303 NOT ACCEPTABLE receive ft	Firmed	-	11/1/18	12 ft	0 ft	12 ft	\$12,136.86/ft	\$145.64
									12.5 ft		AT 12/1/18	
6		M304B1.000X1.250		304 Bar 1.000 X 1.250" : MATERIAL: AISI 304/316 SS BAR OR AISI 304/316 SS PLATE AS PER ASTM A276 OR ASTM A240 NOTE: AISI 303 NOT ACCEPTABLE receive ft	Firmed	-	11/1/18	12 ft	0 ft	12 ft	\$20,227/ft	\$242.72
									13.92 ft		AT 12/1/18	
7		M304R0.313		304 SS Round bar .313 : MATERIAL: AISI 304/316 SS ROUND BAR AS PER ASTM A276 NOTE: AISI 303 NOT ACCEPTABLE receive ft	Firmed	-	11/1/18	12 ft	0 ft	12 ft	\$0.91/ft	\$10.92
									12 ft		AT 12/1/18	
8		M303R0.500		303 Round Bar 0.500" : MATERIAL: AISI 303 SS ROUND BAR AS PER ASTM A582 NOTE: 304/316 NOT ACCEPTABLE receive ft	Firmed	-	11/1/18	36 ft	0 ft	36 ft	\$2,834/ft	\$102.02
									36.25 ft		AT 12/1/18	
9		M303R1.000		303 Round Bar 1.00 : MATERIAL: AISI 303 SS ROUND BAR AS PER ASTM A582 NOTE: 304/316 NOT ACCEPTABLE receive ft	Firmed	-	11/1/18	24 ft	0 ft	24 ft	\$10,145/ft	\$243.48
									24.25 ft		AT 12/1/18	
10		M303R0.750		303 Round Bar 0.750 : MATERIAL: AISI 303 SS ROUND BAR AS PER ASTM A582 NOTE: 304/316 NOT ACCEPTABLE receive ft	Firmed	-	11/1/18	24 ft	0 ft	24 ft	\$5,408/ft	\$129.74
									27.75 ft		AT 12/1/18	
11		M303B1.000X03.000		303 Bar 1" X 3" : MATERIAL: AISI 303 SS BAR AS PER ASTM A582 NOTE: AISI 304/316 NOT ACCEPTABLE receive ft	Firmed	-	11/1/18	12 ft	0 ft	12 ft	\$48,785/ft	\$585.42
12		M4130NT0.500W.083		4130 Round Tube .500 X .083W : MATERIAL: AISI 4130N STEEL TUBING AS PER MIL-T-6736 OR AMS 6371/6360/6361/6362 6373/6374 receive ft	Firmed	-	11/12/18	100 ft	0 ft	100 ft	\$14,500/ft	\$1,450.00
									105 ft		AT 12/1/18	

**ACIER OUELLETTE INC.**

935, Boul. du Havre
Salaberry de Valleyfield (Québec) J6S 5L1
Tél.: 450-377-4248 Mtl: 514-336-4248 Ext.: 800-667-4248
Fax: 450-377-5696 Mtl: 514-336-4246 Ext.: 866-456-4242

DELIVERY - CLIENT

Copy

C000117760

Billed to	Shipped to	Customer N°	CL10001056
DART AEROSPACE LTD		Date	2018/10/29
1270, ABERDEEN ST.	1270, ABERDEEN ST.	Delivery date	2018/10/30
HAWKESBURY, Ontario, K6A 1K7	HAWKESBURY, Ontario, K6A 1K7	Your order N°	PO041482
		Processed by	Denis Quenneville
	Att : LUSSIER Tél.: (613) 632-5200 X 730	Salesman	
Instruction F-M	Delivery Route 5	Carrier	OUELLETTE VALLEYFIELD
		Credit Terme	Net 30 Days

Product Description	Weight	Qty	UM	PCS NB			Internal Use Only				
				CMD	EXP	B/O	IN	I	S	C	OUT
1 HR SHEET 11G (4 X 8) 1321 FEH-11G48 2984 1 FEUILLE 48 X 96 Heat: (152886)	160.00	32.00	PI2_\$CLB		15' X 8'						
2 PLATE 44W 5/8 RANDOM P44-58-V 4128 1 PL. 4' X 4' Heat: (6913D4) M	408.00	16.00	PI2_\$CLB		4' X 4'		8' X 23'	✓			8' X 16' 4' X 4'
3 ROUND CR 1 5/8 1018 (R) RCR-158 5283 1 X 12' Heat: (41299AG) M	84.60	12.00	PI_\$CLB		12' 12'						
4 ROUND SS 5/16 304 (R) RSS-516 5773 1 X Heat: (46862) M	3.12	12.00	PI_\$CLB		1 X 13 3/8"						
5 ROUND SS 1/2 303 (R) RSS-12303 5727 3 X Heat: (891B / 936L) M	24.01	36.00	PI_\$CLB		3 X 12 1/4"						
6 ROUND SS 1 303 (R) RSS-1303 8519 2 X Heat: (923K) M	64.08	24.00	PI_\$CLB		2 X 12 1/4"						
7 ROUND SS 3/4 303 (R) RSS-34303 5761 2 X Heat: (51049) M	36.05	24.00	PI_\$CLB		1 X 13 1/4" 1 X 13 1/4"						

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M304R0.313

PO / BATCH NO.: P0041482 / SJ2342

DATE: 18/11/01

MATERIAL CERT REC'D: Yes

THICKNESS ORDERED: 0.313"

QUANTITY RECEIVED: 12ft

THICKNESS RECEIVED: 0.313"

QUANTITY INSPECTED: 12ft

SHEET SIZE ORDERED: —

QUANTITY REJECTED: 0

SHEET SIZE RECEIVED: —

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y (N)	
CORRECT FINISH	(Y) N	
CORROSION	Y (N)	
CORRECT GRAIN DIRECTION	(Y) N	
CORRECT MATERIAL PER M-DRAWING	(Y) N	ASTM A276
CORRECT THICKNESS	(Y) N	
PHOTO REQUIRED	Y (N)	
CORRECT REF # TO LINK CERT	(Y) N	MT: 46862
CORRECT MATERIAL IDENTIFICATION	Y (N)	
CORRECT M# ON THE MATERIAL	Y (N)	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y (N)	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y (N)	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL	HRC	HRB	DUR A	DUR D	WEBSTER
SIZE OF TEST SAMPLE					
HARDNESS / DUOMETER READING					

testers located in the Quality Office

QC#18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>AT</u>	SIGNED OFF BY: _____
DATE: <u>18/11/01</u>	DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

BOLLINGHAUS STEEL Bollinghaus Steel, SA DIN EN ISO 9001:2008 TÜV CERT No. 01 100 030458	Abnahmeprüfzeugnis / Mill Test Certificate / Cert. de Qualidade EN 10204:2004 / 3.1		No.: / Nr.: / Nr.: 0000144527												
	Unsere interne Verweisung / Our Int. Ref / N° ref int 5600041814 000070		Datum / Date / Data 01.08.2018												
Normen / Standards / Normas TYPE 304/LUNS S30400 and TYPE 304/LUNS S30403 acc. to ASTM A276/A276M-17, ASTM A182/A182M-18, ASTM A193/A193M-17, ASTM A479/A479M-18, ASTM A320/A320M-17a, ASTM A314-15, ASTM A282-15 Pract. E, AMS QQ-S-763D, AMS 5639J, AMS 5647K, ASME SAA479/SA479M-2017, ASME SA276, ASME SA182/SA182M-2017, ASME SA193/SA193M-2017, ASME SA320/SA320M-2017, NACE MR0175-2015, execution as per ASTM A484/A484M-18.															
Kunde / Customer / Cliente		Endgültiger Kunde / Final Customer / Cliente Final													
Bestell Nr./Order Nr./Enc.Nr. C115288		Bestell Nr./Order Nr./Enc.Nr. C115288.07													
Produktgruppe / Product Group / Grupo Produto AISI 304L FLAT 3/4 X 1"		Gewicht / Weight / Peso 975 lb		Bunde / Bundle / Atados 01											
Werkstoff-Nr. / Material-no. / Qualidade 1.4307		Werkstoff-Normbezeichnung / Material standard grade / Norma do material X 2 CrNi 18-9													
Beschreibung / Description / Descrição Stainless steel flat bars, hot rolled, heat treated, straightened and pickled. US DPMR 262.225-7009: MELT SOURCE: Germany / MFG: Portugal															
Schmelze Nr. / Cast no. / Fúndido nr. 01055180		Chemische Analyse in % / Chemical composition in % / Análise química em %													
EAF		C	0.022	Si	0.360	Mn	1.090	P	0.030	S	0.029	Cr	18.140	Ni	8.080
		Mo	0.110	Co	0.210	Cu	0.520	N	0.070	Ti	0.002	-	-	-	-
Proben Nr. / Test no. / Amostra no. 4038073.01.01		ASTM E390 Kerbschlagarbeit Impact Test Resiliência (Charpy V)		Streckgrenze Yield point Tensão limite Rp 0.2 %	Dehngrenze 1% point Limite de extensão Rp 1.0%	Zugfestigkeit Tensile strength Tensão de rotura Rm	Dehnung Elongation Alongamento A5 A10		Einschnürung Reduction of area Coef. Estrecho Z						
		[J]		[Ks]	[Ks]	[Kg]	[%]	[%]	[%]						
		217.0		47	55	94	55.3	58.4	68.0						
Visuelle Kontrolle Visual inspection Inspeção visual <input checked="" type="checkbox"/> Ok		ASTM E10 Härte Hardness Dureza 162 [HB]		ASTM A262 Practice E Korrosionsbeständigkeit IC Test Corrosão Intermetálica <input checked="" type="checkbox"/> Ok		Wärmebehandlung Heat treatment Tratamento térmico Annealed Quenched 1900 °F (1050 °C) (water quenched)									
ASTM A484 Maßkontrolle Dimensional inspection Inspeção dimensional <input checked="" type="checkbox"/> Ok		ASTM E112 Korngrößen Grain size Tamanho da grão 8		Werkstoffprüfbericht Quality Control Representative Inspector de Qualidade J 305											
Verechungsprüfung Test of identity Teste de identificação <input checked="" type="checkbox"/> Ok		Mikroskopische Untersuchung Micrographic test <input checked="" type="checkbox"/> Ok Material free from segregation defects.		Nuno Silva (Q-NS)											
Bemerkungen / Remarks / Observações Country of origin: Portugal. No weld repair done. Material is free of mercury and radiation contamination.					Hiermit bestätigen wir, dass das Material der oben genannten Spezifikation entspricht. We confirm that this material meets the specification according to the mentioned standards. Confirmamos que este material respeita as especificações de acordo com as normas referidas.										

SPECIFICATION CONTROL DRAWING

△ PURCHASE MATERIAL AISI 304/316 SS BAR OR AISI 304/316 SS PLATE
(NOTE: AISI 303 NOT ACCEPTABLE)

△ SPECIFICATION: ASTM A276 OR ASTM A240

PART NUMBER M304B T.TTT X WWW.WWWW
THICK WIDTH

WHERE "T TTT" = THICKNESS IN INCHES
AND "WWW WWW" = WIDTH IN INCHES

△ EG. 0.5" x 3.0" BAR = M304B0.500X3.000
EG. 0.5" X 12.0" PLATE = M304B0.500X12.000

RELEASED
61 2010-11-30

C	ADDED PLATE TO PURCHASE MATERIAL, ADDED PLATE RELATES SPECIFICATIONS AND EG. CHANGED TTT'S FROM 304/316 BAR TO 304/316 BAR/PLATE	WB	10.11.25
B	REFORMAT DOW AND SPEC (IN DOW)	CP	09.07.15
A	NEW ISSUE	PH	05.06.10
REV	DESCRIPTION	BY	DATE
DESIGN	<i>PN</i>	DART AEROSPACE LTD MAYNESHUR, ONTARIO, CANADA	
DRAWN	<i>JS</i>	BRAWING NO	REV. C
CHECKED	<i>JS</i>	M304B	SHEET 1 OF 1
MFG. APPR	<i>JS</i>	TITLE	SCALE
APPROVED	<i>JS</i>	304/316 BAR/PLATE	NTS
DATE	10.11.25	COPYRIGHT © 2005 BY DART AEROSPACE LTD	

Entered: _____ Date: _____



WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

NCR No.

Route update only

Job: _____ Part No. _____		DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/>		DEPARTMENT/PROCESS Skid-tube <input type="checkbox"/> Cross tube <input type="checkbox"/> Eng. (Non-AW) <input type="checkbox"/> Engineering <input type="checkbox"/> Machining <input type="checkbox"/> Small Fab <input type="checkbox"/> Prod. Eng. Coord. <input type="checkbox"/> Water Jet <input type="checkbox"/> Large Fab <input type="checkbox"/> Finishing <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Supplier <input type="checkbox"/> Quality <input type="checkbox"/>					
Date :	Sequence #:			QTY Affected :			MRB (QS1042)		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor	
								QC / QA Coordinator	
Root Cause		FAULT CATEGORY							
Operator <input type="checkbox"/>		<input type="checkbox"/> Pressure/Forced	<input type="checkbox"/> Contamination	<input type="checkbox"/> Power Loss/Surge	<input type="checkbox"/> Positioned Wrong				
Manufacturing Process <input type="checkbox"/>		<input type="checkbox"/> Bending	<input type="checkbox"/> Misaligned/off center	<input type="checkbox"/> Folio/Program	<input type="checkbox"/> Outside Tolerance				
Equip/Tooling <input type="checkbox"/>		<input type="checkbox"/> Crushing	<input type="checkbox"/> BOM/Route	<input type="checkbox"/> Grain Direction	<input type="checkbox"/> Drawing				
Handling/Presservation <input type="checkbox"/>		<input type="checkbox"/> Cracks	<input type="checkbox"/> Broken/Damage/Defect	<input type="checkbox"/> Weld	<input type="checkbox"/> Finish				
Material <input type="checkbox"/>		<input type="checkbox"/> Crimp/Kink/Ripple/Wave/Twist	<input type="checkbox"/> Incomplete/Unclear Instructions	<input type="checkbox"/> Wrong Stock Pulled	<input type="checkbox"/> Part Lost/Missing				
Product Improvement <input type="checkbox"/>		<input type="checkbox"/> Marks/Chatter	<input type="checkbox"/> Drill Holes	<input type="checkbox"/> Out of Sequence	<input type="checkbox"/> Misread				
Process Improvement <input type="checkbox"/>		<input type="checkbox"/> Mislabeled	<input type="checkbox"/> Fit/Function	<input type="checkbox"/> Off-set/Set-up					
Human Factors <input type="checkbox"/>		Other/Details:							